Amendments to the Claims

The current listing of the claims replaces all previous amendments and listings of the claims.

1. (Currently Amended) An apparatus for correcting deformation of a gas turbine blade comprising:

a stationary die fixed to a backside of a tip shroud of a gas turbine blade to hold a back surface thereof when deformation of the tip shroud of a gas turbine blade is corrected;

a pressing die pressing a front surface of the tip shroud so as to press the tip shroud of the blade between the pressing die and the stationary die;

a supporting mechanism for supporting the stationary die with respect to the pressing die;

a hydraulic drive mechanism connected to the pressing die and including pressure generator for pressing the pressing die against the tip shroud held by the stationary die; and a control device operatively connected to the hydraulic drive mechanism and adapted to set and indicate a driving condition on a basis of deformation correction data preliminarily

wherein the surface of the stationary die contacting the tip shroud of the blade has a shape subtracting a return amount from a shape of the tip shroud after the correction of the deformation, and a surface of the pressing die contacting the tip shroud has a shape adding the return amount to the shape of the tip shroud after the correction of the deformation.

2. (Canceled)

stored in the control device,

3. (Currently Amended) The deformation correction apparatus according to claim [[2]] 1, wherein the preliminarily stored data includes data of pressure and displacement to be outputted to the pressure generator of the hydraulic drive mechanism, said control device includes a pressure operating means and a displacement operating means, and said return

Application No. 10/603,805

Reply to Office Action of September 1, 2004

amounts are operated and set by the pressure operating means and the displacement operating means based on a predetermined data with a position of the pressing die contacting the deformed portion of the tip shroud being a reference position.

- 4. (Original) The deformation correction apparatus according to claim 1, wherein the pressing die is composed of a plurality of divided sections, and said pressure generator includes a plurality of pressing devices corresponding to the divided sections of the pressing die so as to press the respective divided sections independently in accordance with setting conditions set for the divided sections, respectively successively.
- 5. (Original) The deformation correction apparatus according to claim 4, wherein said stationary die is composed of a plurality of divided sections so as to correspond to the divided sections of the pressing die, said hydraulic drive mechanism further includes a pressure generator including a plurality of pressing devices corresponding to the divided sections of the stationary die so as to press the respective divided sections thereof independently in accordance with setting conditions set for the divided sections, respectively successively.
- 6. (Original) The deformation correction apparatus according to claim 1, wherein the pressing die has a convex portion contacting the tip shroud and said hydraulic drive mechanism includes a pressure generator for pressing the pressing die so that the convex portion contacts a portion of the tip shroud of the blade and also includes a moving device for horizontally moving the pressing die along an entire surface of the tip shroud while being pressed to thereby correct the deformation of the tip shroud during the movement.
- 7. (Original) The deformation correcting apparatus according to claim 1, wherein the pressing die contacting the tip shroud has a convex surface and the hydraulic drive mechanism includes a pressure generator for pressing the pressing die so that the pressing

Application No. 10/603,805

Reply to Office Action of September 1, 2004

surface thereof rolls along an entire surface of the tip shroud by moving a loading point of the pressing die against the tip shroud surface.

8. and 9. (Canceled)

10. (New) An apparatus for correcting deformation of a gas turbine blade comprising:

a stationary die fixed to a backside of a tip shroud of a gas turbine blade to hold a back surface thereof when deformation of the tip shroud of a gas turbine blade is corrected;

a pressing die pressing a front surface of the tip shroud so as to press the tip shroud of the blade between the pressing die and the stationary die;

a supporting mechanism for supporting the stationary die with respect to the pressing die;

a hydraulic drive mechanism connected to the pressing die and including pressure generator for pressing the pressing die against the tip shroud held by the stationary die; and

a control device operatively connected to the hydraulic drive mechanism and adapted to set and indicate a driving condition on a basis of deformation correction data preliminarily stored in the control device,

wherein the pressing die comprises a plurality of divided sections, and said pressure generator includes a plurality of pressing devices corresponding to the divided sections of the pressing die so as to press the respective divided sections independently in accordance with setting conditions set for the divided sections, respectively successively.

11. (New) The deformation correction apparatus according to claim 10, wherein said stationary die is composed of a plurality of divided sections so as to correspond to the divided sections of the pressing die, said hydraulic drive mechanism further includes a pressure generator including a plurality of pressing devices corresponding to the divided sections of

Application No. 10/603,805

Reply to Office Action of September 1, 2004

the stationary die so as to press the respective divided sections thereof independently in accordance with setting conditions set for the divided sections, respectively successively.

- 12. (New) The deformation correction apparatus according to claim 10, wherein the pressing die has a convex portion contacting the tip shroud and said hydraulic drive mechanism includes a pressure generator for pressing the pressing die so that the convex portion contacts a portion of the tip shroud of the blade and also includes a moving device for horizontally moving the pressing die along an entire surface of the tip shroud while being pressed to thereby correct the deformation of the tip shroud during the movement.
- 13. (New) The deformation correcting apparatus according to claim 10, wherein the pressing die contacting the tip shroud has a convex surface and the hydraulic drive mechanism includes a pressure generator for pressing the pressing die so that the pressing surface thereof rolls along an entire surface of the tip shroud by moving a loading point of the pressing die against the tip shroud surface.
 - 14. (New) An apparatus configured to correct deformation, comprising:
- a first die configured to contact a first surface of a tip shroud of a turbine blade during deformation correction;

a second die configured to contact a second surface of the tip shroud during deformation correction;

a drive mechanism configured to move one of the first and the second dies to press the tip shroud between the first and second dies; and

a control device configured to control the drive mechanism based on deformation correction data stored in the control device,

wherein the first die has a concave shape and the second die has a convex shape corresponding to the concave shape.

Application No. 10/603,805
Reply to Office Action of September 1, 2004

15. (New) The apparatus according to claim 14, wherein the first die has a first surface including the concave shape, the second die has a second surface including the convex shape, and the concave and convex shapes are configured to bend the tip shroud beyond a position of the tip shroud after removal of the tip shroud from between the first and second dies.